

# ICT

## Preparation book

### 4<sup>th</sup> Prim



**2024 - 2025**

# Teacher's Biography



Name: .....

School: .....

The educational administration:.....

Qualification: .....

Teaching Subject: .....

Comprehensive School: .....

The school to which he is delegated: .....

Date of appointment: .....

The job is on the staff: .....

Teacher Code: .....

Mobile Number: .....

**Teacher**

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**Supervisor**

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**School Principal**

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## Daily Class Schedule

Period Day	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth	Ninth
Saturday									
Sunday									
Monday									
Tuesday									
Wednesday									
Thursday									

Period Day	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth	Ninth
Saturday									
Sunday									
Monday									
Tuesday									
Wednesday									
Thursday									

**Teacher**

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**Supervisor**

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**School Principal**

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# The specific objectives of computer



- **Providing** students with the appropriate amount of scientific and basic knowledge and skills related to how to solve problems
- **Develop** basic scientific thinking skills
- **Gaining** the ability to use technical means , multimedia, and networks and employing them as tools to serve and integrate with different fields of study
- **Training** students to work in a team by practicing computer techniques
- **create** Websites and define their properties
- **Developing** students' awareness of the importance of technological awareness and cultural communication
- **Acquisition of** concepts of the principles of designing web pages
- **appreciation** of the role played by science and scientists
- **recognize** On the suite of Microsoft Office programs
- **Raising** students' awareness of the concept of information ethics and the rules of safe use of the Internet
- **It collects** data and presents it in an interesting way

**Teacher**

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**Supervisor**

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**School Principal**

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# The specific objectives of computer and information technology

- **Identify** some technology used to explore the earth.
- **Explain** the different terms for technology.
- **Discuss** the history of ICT.
- **Discuss** How to use Technology in our daily life.
- **Explain** the main components of a computer system.
- **Explain** the basic functions of operating systems and software
- **Realize** the importance of the operating system of a computer
- **Explain** the definition of assistive technology
- **Discusses** how technology is improving the lives of people of determination
- **Suggest** a technology that can contribute to improving the lives of others
- **Discuss** the problems he has experienced at school or at home.
- **Suggest** solutions to common ICT problems.
- **Explain** why technological solutions must match people's lives
- **Describe** online risks and dangers.
- **Explain the** importance of keeping personal information privacy.
- **Discuss** the method of choosing words key to be used in the research Online
- **Realize** the importance of search engines for children
- **Define** the characteristics of sources reliable online sources.
- **Describe** reliable sources of information and unreliable online.
- **Explain** the purpose of Egyptian knowledge bank.
- **Describe** the role of control management Internet crimes
- **Realize** importance of creating strong password.
- **Discuss** the importance of good anti-viruses software.
- **Identify** an important topic to raise awareness.

**Teacher**

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**Supervisor**

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**School Principal**

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**Distribution of the content of computer,  
Information Technology and communication  
For the 4th primary grade –  
First term for year 2024-2025**

**The first axis: (The role of information and communication technology in our lives)**

1		Lesson 1	Active Explorer
		Lesson 2	The evolution of technology
2		Lesson 3	Components of computer systems
		Lesson 4	Software and Operating Systems
3		Lesson 5	Supporting people of determination
		Lesson 6	Common Problems and Solutions
4		Lesson 7	collecting, analyzing, and graphing data
		Lesson 8	Reporting findings
5		General review on the first axis	

**The second axis: (Digital safety and security precautions)**

6		Lesson 1	Active Explorer
		Lesson 2	Online dangers and how to be safe
7		Lesson 3	Using ICT tools in a healthy and ethical way
		Lesson 4	How to search online
8		Lesson 5	How to check whether information online is true
		Lesson 6	Who can help you with online problems
9		Lesson 7	My personal digital safety plan
		Lesson 8	Practicing what you learned
10		General review on the second axis	

**Teacher**

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**Supervisor**

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**School Principal**

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# Scope and sequence



## THEME I The role of ICT in our lives

Essential Question: How can we use technology effectively?

LESSON	TOPICS	SKILLS INTEGRATION		
		Life Skills	Values	Issues and challenges
<b>LESSON 1</b> Explorer in Action	<ul style="list-style-type: none"> <li>How archaeologists use ICT in their jobs and daily life</li> <li>Technology used to explore the earth</li> </ul>	Learning to know: critical thinking; problem solving	Academic values: appreciation of science and scientists	Issues of globalization: technological awareness
<b>LESSON 2</b> The evolution of technology	<ul style="list-style-type: none"> <li>The history of ICT</li> <li>How technology is used in our daily life</li> <li>Practice of typing skills</li> </ul>	Learning to know: critical thinking; problem solving Learning to be: communication; self-management	Academic values: appreciation of science and scientists; curiosity	Issues of globalization: technological awareness
<b>LESSON 3</b> Components of computer systems	<ul style="list-style-type: none"> <li>The main components of computer systems</li> <li>Input, output and data</li> <li>Different types of computer hardware</li> </ul>	Learning to do: collaboration Learning to know: creativity; problem solving	Academic values: perseverance	Issues of globalization: digital citizenship
<b>LESSON 4</b> Software and operating systems	<ul style="list-style-type: none"> <li>Operating systems and software</li> <li>How a computer communicates</li> </ul>	Learning to be: communication Learning to know: creativity	Work values: collaboration	Issues of globalization: technological awareness
<b>LESSON 5</b> Supporting people of determination	<ul style="list-style-type: none"> <li>Assistive technology</li> <li>How technology can improve the lives of people of determination</li> </ul>	Learning to know: creativity Learning to live together: empathy; respect for diversity	Co-existence values: respect; tolerance and acceptance	Non-discrimination issues: discrimination against people with special needs
<b>LESSON 6</b> Common ICT problems and solutions	<ul style="list-style-type: none"> <li>Common ICT problems</li> <li>Solutions to common ICT problems</li> </ul>	Learning to know: creativity; problem solving		Issues of globalization: technological awareness
<b>LESSON 7</b> Collecting, analyzing and graphing data	<ul style="list-style-type: none"> <li>Digital tools to organize data</li> <li>Collecting, analyzing and graphing data</li> </ul>	Learning to be: communication Learning to live together: participation	Academic values: objectivity	
<b>LESSON 8</b> Reporting findings	<ul style="list-style-type: none"> <li>Different ways to communicate electronically</li> </ul>	Learning to be: communication Learning to know: creativity; critical thinking	Co-existence values: participation	Issues of globalization: entrepreneurship



## THEME 2 Digital safety and security precautions

Essential Question: How can you be safe and use reliable sources when online?

LESSON	TOPICS	SKILLS INTEGRATION		
		Life Skills	Values	Issues and challenges
<b>LESSON 1</b> Explorer in Action	<ul style="list-style-type: none"> <li>How scientists use ICT in their jobs and daily life</li> <li>How technology can help to communicate information</li> </ul>	Learning to know: critical thinking; problem solving	Academic values: appreciation of science and scientists	Health and population issues: therapeutic health
<b>LESSON 2</b> Online dangers and how to be safe	<ul style="list-style-type: none"> <li>Online risks and dangers</li> <li>The importance of keeping personal information private</li> <li>Staying safe online</li> </ul>	Learning to be: communication Learning to know: critical thinking	Personal values: independence	Citizenship issues: awareness of duties and rights
<b>LESSON 3</b> Using ICT tools in a healthy and ethical way	<ul style="list-style-type: none"> <li>Posting online</li> <li>Crediting others</li> <li>Respecting the law</li> <li>The positive effects of ICT tools</li> </ul>	Learning to live together: respect for diversity Learning to be: accountability	Co-existence values: respect; tolerance and acceptance	Citizenship issues: legal awareness Non-discrimination issues: discrimination against people with special needs
<b>LESSON 4</b> How to search online	<ul style="list-style-type: none"> <li>Safe online searches</li> <li>Choosing key words for an online search</li> </ul>	Learning to be: communication; self-management Learning to know: critical thinking	Personal values: independence	Issues of globalization: technological awareness
<b>LESSON 5</b> How to check whether information online is true	<ul style="list-style-type: none"> <li>Reliable and unreliable online sources</li> <li>The Egyptian Knowledge Bank</li> </ul>	Learning to know: critical thinking	Academic values: curiosity; objectivity	Issues of globalization: digital citizenship
<b>LESSON 6</b> Who can help you with online problems?	<ul style="list-style-type: none"> <li>Online bullying and inappropriate content</li> <li>What to do about online problems</li> </ul>	Learning to do: decision-making Learning to live together: empathy		Citizenship issues: legal awareness Issues of globalization: digital citizenship
<b>LESSON 7</b> My personal digital safety plan	<ul style="list-style-type: none"> <li>Identifying and creating strong passwords</li> <li>The importance of good anti-virus software</li> <li>Protecting devices from possible online dangers</li> </ul>	Learning to know: creativity; critical thinking	Academic values: objectivity	Issues of globalization: technological awareness
<b>LESSON 8</b> Practicing what you learned	<ul style="list-style-type: none"> <li>Researching and presenting a topic safely and effectively</li> </ul>	Learning to do: collaboration	Co-existence values: participation Personal values: independence	Issues of globalization: technological awareness



Date						
Class						
Session						



## First Axis (The role of ICT in our lives)

### Lesson 1: The Active Explorer Albert Lin

**Lesson objectives:** By the end of this lesson the student will be able to:

- **Identify** some ICT tools used to explore the earth.
- **Explain** the different terms for technology.
- **Describe** how technology can be used to search for things under the ground

**Strategy:**

**Teaching aids:**

**Warm Up :**

Brainstorming - dialogue and discussion - cooperative learning

Electronic board- introductory video by Albert Lin

What are the different types of technology that can be used in Earth exploration?

### Lesson Presentation





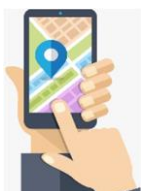
→ **Albert Lin** is an archaeologist who used technological tools to explore archaeological sites (**without digging**).

→ The importance of technological tools for archaeologists is as follows :-

- 1- It **allows them** to explore in a simple and easy ways and saves effort and cost
- 2- It **helps them** to identify where they should dig, by conducting a survey above and below the ground.

→ There are many ICT tools that Albert Lin can use to explore the Earth:



Underground		above ground		
Magnetometer	Ground penetrating radar (GPR)	Satellites	Drones	Global Positioning System (GPS)
It is used to find <b>metal in the ground</b> and also to measure the magnetic field	It is used to find <b>objects buried</b> below the surface of the earth	Used to <b>take pictures from the space</b> To get more details and information about an area	It is used to <b>detect an area</b> by controlling the pilot while it is on the ground to <b>take pictures</b>	To <b>search for a site</b> for a purpose
				

You don't have to be a scientist or archaeologist or even an adult to be able to use technology

**Evaluation :**

**Put ✓ or X:-**

GPS is used to find the places you want to visit ( )



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## First Axis (The role of ICT in our lives) Lesson 2: The evolution of technology

**Lesson objectives:** By the end of this lesson the student will be able to:

- **Discuss** the history of ICT.
- **Discuss** How to use Technology in our daily life.
- **Improve** his typing speed.

**Strategy:**

Dialogue and discussion - practical training

**Teaching aids:**

- Electronic whiteboard-presentation-Wordprogram - video

**Warm Up :**

How can you record information?

### Lesson Presentation

#### Stages of technology development over time :

**The era of Pre-mechanical era of general**  
3000 BC to 1450 m

Communication between peoples was through pictures or drawings, as in hieroglyphic writings. People recorded a lot of writings for a lot of information, and the Egyptian Knowledge Bank contains some of these documents

#### Tools used

Pens and pencils-papers-manuscripts



**The era of the mechanical revolution**  
from 1450 to 1840

Here the technological revolution began, and people were able to record a large amount of information, and that period witnessed the emergence of printing, as books were printed and the first calculator called Pascaline was used

#### Tools used

Typing machine, calculator and typewriter



**The era of electrical/mechanical revolution**  
from 1840- 1940

The beginning of the stage of communication, electricity was used for the first time, and the first digital computer was invented and it worked with vacuum bulbs. It was from him that the telephone was invented

#### Tools used

A telephone, telephone lines, a tape recorder, and the first digital computer



**The era of the electronic revolution**  
from the 1940s' till now

The era of the information revolution computers and laptops were invented along with satellites and GPS

#### Tools used

Satellite-smartphone-online maps-word processor-email-text messaging



**Evaluation : Complete:**

Pascaline's machine is the first version of.....



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## First Axis (The role of ICT in our lives)

### Lesson 3 : Components of computer system

**Lesson objectives:** By the end of this lesson the student will be able to:

- **Explain** the main components of a computer system.
- **Identify** the concept of input, output, and data
- **Describe** different types of computer hardware.

**Strategy:**

Dialogue and discussion - practical training

**Teaching aids:**

Electronic board - - presentation - cards for computer components

**Warm Up :**

what are the shapes of computer ?

### Lesson Presentation

**Computer:** It is an electronic device whose functions to process data and has the ability to store, retrieve and process data and information such as modifying and creating tables, presentations, video clips, and so on

**From the uses of the computer:-**

- |                         |   |           |
|-------------------------|---|-----------|
| 1- Writing documents    | 2- Sending Email  | 3- Gaming |
| 4- Surfing the Internet | 5- Editing and creating spreadsheets, presentations, and videos |           |

**Shapes of computers:-**


- |  |  |   |   |
|--|--|---|---|
| 1- Personal computer  | 2- Laptops  | 3- Tablets  | 4- Touch screen devices  |
|--|--|---|---|

→ The shape of the computer and its components vary according to its type, date of manufacture, and device model.

### Basic components

→ Computer components are divided into:

input units			output units		
Keyboard	Mouse	Microphone	Display Screen	Braille terminal	Speaker
Camera	Scanner	Touchscreen	Printer machine	Speech synthesizer	

 **The main component of using a computer is you!** Computers are only as effective as the data we put into them. Some users may connect the devices in the wrong way or misuse them, which can cause malfunction. **Therefore,** always be careful when you connect the devices to the computer

### How does computer work?

Users enter data to the computer with input units and the machine in turn gives us the information with one of the output units

**Evaluation: Complete:** Of the devices that a word processing needs to write on a computer.....





Date						
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## First Axis (The role of ICT in our lives) Lesson 4: Software and operating system

**Lesson objectives:** By the end of this lesson the student will be able to:

- **Explain** the basic functions of operating systems and software
- **Differentiate** between hardware and software
- **Realize** the importance of the operating system of a computer

**Strategy:** Brainstorming - dialogue and discussion - Practical training

**Teaching aids:** - Electronic board - video- presentation

**Warm Up :** How does the computer communicate with you and carry out your orders?

### Lesson Presentation

→ we do many things with our devices, we play games, write notes and go on the internet. **But how does this all happen?**

→ **Computer components are divided into:**

1- **Hardware:** It is the touched parts that make up a computer and it is divided into input units, output units, and the central process unit.

📖 **The Central Processing Unit (CPU)** is responsible for processing and controlling data and converting it into information that it sends back to the operating system.

📖 When processing data in the event that the program solve any problem before it gives the system Run commands the processing unit to save what you typed up to this point At the moment, your work may get erased and you have to redo it so it is important to remember to save your work regularly

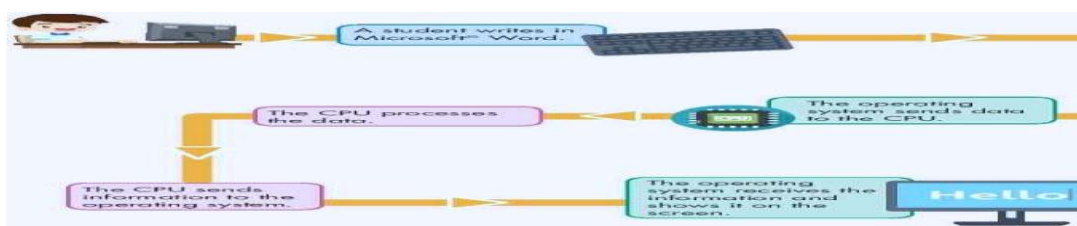
2- **Software:** - It helps the user to do the tasks he needs

→ **Software includes**

a) **Operating System:** Responsible for running the computer and helping the user to run various programs, such as Windows.

b) **Programs and applications:** such as presentations - word processor - Google Chrome browser - gaming applications

→ **Illustration of how data is processed in Microsoft Word :**



**Evaluation:** Put ✓ or X:-

Operating system is not required for computers ( )

Date						
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**First Axis**(The role of ICT in our lives)  
**Lesson 5: Supporting people of determination**

**Lesson objectives:** By the end of this lesson the student will be able to:

- **Explain** the definition of assistive technology
- **Discuss** how technology is improving the lives of people of determination
- **Suggest** a technology that can contribute to improving the lives of others

**Strategy:**

**Teaching aids:**

**Warm Up :**

Critical thinking - Active learning

- Electronic board - video- presentation

How can technology help people with determination?



**Lesson Presentation**

▪ **Assistive Technology:-**

▪ Devices and applications that assist people of determination in the businesses they find Difficulty carrying out in their daily lives.

▪ **Albert Lin:** He has a limb difference but he didn't let that stand in the way of his success , he still does all the things , he used to do in ,The former, including exploring multiple places around the world And had it not been for the prosthetic leg that he got thanks to **assistive technology** " for what was able to do so "

▪ **Stephen Hawking:** **physicist** who used the robotic chair. to move, and was equipped with a system that enables him to speak

▪ **Examples of assistive technology**

⚙️ **Hearing aids** helping people with problems hearing Includes applications through which headphones can be connected with smart phones

⚙️ **screen enlargement software** they are programs that enlarge everything on a screen computer Allow people with poor eyesight Interact with a computer

⚙️ **Alternative communication software** helping people of determination to communicate verbally linguistic with others

⚙️ **Sports equipment** certain sports equipment is allowed for people with disabilities And amateurs who have lost a limb to climb mountains

📖 **Sports equipment helps people of determination to carry out normal and exceptional activities, such as soccer balls The squeaky tricycles Wheels and hand operated Prosthetics and devices Prosthetic wheelchairs**

**Evaluation:** Put ✓ or X:-

Assistive technology is a technology that helps people of determination go about their daily lives( )





Date						
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## First Axis (The role of ICT in our lives)

### Lesson 6: Common Problems and Solutions

**Lesson objectives:** By the end of this lesson the student will be able to:

- **Discuss** the problems he has experienced at school or at home.
- **Discuss** how people experience problems with technology.
- **Suggest** solutions to common ICT problems.

**Strategy:** Problem solving - dialogue and discussion - cooperative learning

**Teaching aids:** - Electronic board - video- presentation

**Warm Up :** What ICT problems have you experienced at school or at home?

### Lesson Presentation

🌀: **Technology tools, such as a PC, laptop, or tablet, help you**

→ Do the tasks that assigned to you by your teacher → Search for information on the internet

→ Writing reports and assignments using word processing software → Use it in games

📖 However, sometimes a malfunction or temporary malfunction may occur in these devices that prevents you from operating them.

🌀 **Some technological problems while using a computer and how to solve them:**

**Problem-: App won't open**

**Solution :**

- ❖ Restart computer and try again
- ❖ Check software updates.
- ❖ Uninstall and reinstall the app.
- ❖ Ask your teacher or family for help.

**Problem-: The mouse cursor isn't working**

**Solution :**

- ❖ Make sure you connect the mouse cable to correct place in the motherboard and restart your device.
- ❖ Replace the mouse

**Problem-: You can't find a file**

**Solution :**

- ❖ Check Downloads folder. If you looking for word file, look in Documents folder. If you looking for photo, look in Pictures folder.
- ❖ Use Search box next to start button.
- ❖ Ask your teacher or family for help

**Problem-: The keyboard isn't typing**

**Solution :**

- ❖ Make sure you connect the keyboard cable to correct place in the motherboard and restart your device.
- ❖ Replace the keyboard
- ❖ Ask your teacher or family for help.

**Problem-: Your screen freezes**

**Solution :**

Press and hold "Ctrl + Alt + Del" buttons together.

Try to power off computer and restart.

Ask your teacher or family for help.



**Complete:** The command responsible for closing the PC or mobile applications is.....



Date						
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**First Axis**(The role of ICT in our lives)  
**Lesson 7: Software and operating system**

**Lesson objectives:** By the end of this lesson the student will be able to:

- **Define** the digital tools can be Used to organize that data.
- **Present** information about an students issue by collecting, analyzing, and graphics graphing data.
- **Discusses** with his classmates Common problems for students

**Strategy:**

**Teaching aids:**

**Warm Up :**

Cooperative learning - dialogue and discussion - Practical Training

- Electronic board - Presentation - boards and pens

How can digital tools help you organize information?

**Lesson Presentation**

**❑ In order for scientists and archaeologists to be able to study phenomena or solve problems, they had to follow the following steps:**

→ related data collection with it → data analysis → data expression and represent it in graphics

**1- Data collection:**

→ It is important to ensure that the information you collect is correct and accurate. Always use reliable sources.

→ Data can be collected from various sources, and the most common sources are:

- ❑ Books and articles ( **digital or printed**)
- ❑ Records
- ❑ Surveys " **digital and paper** "
- ❑ experiments

**2- Data analysis:**

**In this step, you must:**

- \* Review the data you collected, analyze it and explain its meaning.
- \* Extract recurring patterns from them to be able to analyze them.
- \* Interpret data to understand its meaning.
- \* Data can be used to find out what happened in the past and why what might happen in the future, and what should be done

**3- Data expression:**

- \* When you have finished analyzing the information reached, you are ready to express it in a graph.
- \* A graph is used to display and compare different categories of information the most common is ' Clearly the **column** graph.

\* Graphs can be drawn on paper or using spreadsheet software **Excel**. **Example: -**

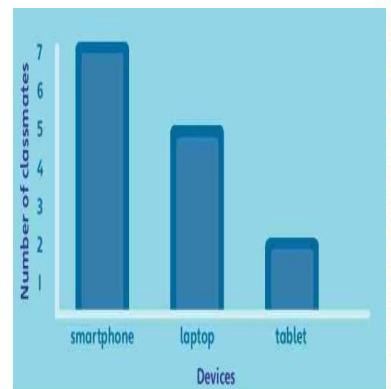
Nesma asked 14 of her classmates about their favorite devices.

**And this is the information I analyzed: Note that the method of data collection here is interviews**

- ✓ Seven of her classmates answered that their favorite device is a smartphone.
- ✓ Five of her classmates answered that their favorite device is a laptop.
- ✓ Two of her classmates answered that their favorite device is a tablet.
- ✓ After Nesma analyzed the information, she expressed it on a graph

**Evaluation:**

**Complete:** The most common graph is.....



Date						
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## First Axis (The role of ICT in our lives) Lesson 8: Preparing reports for research

**Lesson objectives:** By the end of this lesson the student will be able to:

- Discusses different ways of communicate electronically.
- Explains how to use different types of technology to communicate with others.
- Communicates electronically with colleague's e and teachers.

**Strategy:**

Dialogue and discussion - Practical training - critical thinking

**Teaching aids:**

Electronic board- Presentation panels

**Warm Up :**

Why is it important to be able to communicate electronically with others?

### Lesson Presentation

❑ **Researchers report the information obtained in several different ways:**

- \* Digital Articles published
- \* blogging digital
- \* Social media sites
- \* Interviews
- \* TV programs
- \* video chats
- \* Text messages
- \* email

⚙️ **Digital blogs:**

Opinions express the owner, published on the Internet.

⚙️ **Published digital articles:** personal information and opinions expressing their author, available for reading and download on various sites.

⚙️ **Social networking sites:** one of the unreliable sources of information, and it allows you to display and share the information with your friends or people you know.

⚙️ **Interviews:** a conversation between two or more persons for the purpose of obtaining information.

⚙️ **TV shows Recorded or direct interviews or programs that allow information to be shared with viewers via television.**

⚙️ **Email: Email** is the most common way to share data.

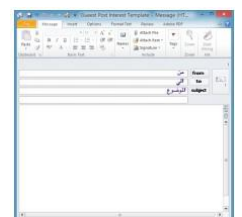
Communication takes place by exchanging messages between individuals electronically. You can write reports and attach files.

⚙️ **Video chats:** used to communicate over distant places with your friends and colleagues with sound and image, and we use the camera and microphone. It can be used to share information with specific people.

⚙️ **Text messages:** Friends can use it as a way to communicate between them, and it is one of the appropriate solutions to deliver quick information



**Evaluation:** **Complete:** Express their owners published on the Internet.....





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## Review on First Axisarch (The role of ICT in our lives)

**Lesson objectives:** By the end of this lesson the student will be able to:

- **Identify** some of the technology tools used in earth exploration
- **Explain how** to use different tools technology to communicate with others
- **Practicing** some skills in dealing with computer and internet problems

**Strategy:**

Brainstorming - dialogue and discussion - cooperative learning

**Teaching aids:**

Electronic board -

**Warm Up :**

After what you learned in the first axis How can we use information and communication technology effectively?

### Lesson Presentation

**Write a sentence :** Write a sentence for each of the following pairs of phrases to explain the connection between them:

- ☐ keyboard and display.
- ☐ Operating system and CPU.
- ☐ Poll and chart

**Read and answer:**

- ☐ Name two tools that archaeologists use to explore the Earth.
- ☐ In what era was electricity used for the first time
- ☐ List three peripherals that you use during a video chat.
- ☐ What is assistive technology? Give an example of it .
- ☐ What is software? Mention an example of it.
- ☐ Identify one of the most common problems in information and communication technology and ways to solve it.
- ☐ What is the best way to analyze a large amount of data?
- ☐ List three ways in which researchers report on the information they collect.



**Evaluation:** Evaluate the students' answers



# **Second Axis**



**2**

**2024 - 2025**

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**Second Axis**(Digital safety and security precautions)  
**Lesson 1: Active Explorer (Annika Olah)**

**Lesson objectives:** By the end of this lesson the student will be able to:

- Talk about the importance of the Internet.
- **Describe** how technology is **used** to communicate with others
- **Explain** why technological solutions must match people's lives

**Strategy:**

Brainstorming - dialogue and discussion - Practical training

**Teaching aids:**

- Electronic board - video- presentation

**Warm Up :**

How can the Internet help you discover more information?

**Lesson Presentation**

**The Internet** is an effective tool for communicating with others Through which all kinds of information canHowever, it is necessary to make sure that the information you have obtained is correct be accessed

- ❑ **Anika Olah:** A biologist, while she was at a wedding, tasted a candy made from a type of nut. She was curious and wanted to know more about this type of nut. For cancer, I tried to help the community by speaking to the local people, and I prepared awareness campaigns to help people lead a healthier lifestyle.



❑ **Steps to conduct a web search:**

1. **Select** the information you want to obtain
2. **Think** about the search terms or keywords you will use
3. **Verify** the data by trying to find it in more than one source
4. **Review** the information provided I got it pretty well
5. **Be sure** to write down this data

Note: You can find data by talking to people directly or by searching online



**Evaluation:** **Complete:** When conducting a search on the Internet, you should.....



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**Second Axis**(Digital safety and security precautions)  
**Lesson 2: Online dangers and how to be safe**

**Lesson objectives:** By the end of this lesson the student will be able to:

- **Describe** online risks and dangers.
- **Explain the** importance of keeping personal information privacy.
- **Discuss** ways to be safe while online.

**Strategy:** Brainstorming - dialogue and discussion

**Teaching aids:** Electronic board- presentation

**Warm Up :** What do you already do to stay safe online?

**Lesson Presentation**

**There are many ways to communicate via the Internet, such as** using computers, phones, and tablets.

**You can communicate with your colleagues, through:** instant text messages, e-mails, direct messages, - and chatting through discussion forums.

**You should pay attention:** There are some people who communicate via the Internet **for bad purposes** , or - with the aim of **stealing** your personal information, **and make sure** you know **the identity** of the person you are talking to online.

If you come into contact with an unkind person online, you can **block them** from contacting you.

If you block **Block** someone, you won't be able to do this the person who communicates with you or see your account

**Be careful** and do not click on links whose content you do not know.

**Sharing data and information on the Internet:** **Do not share** your personal information online without the consent of your teacher or family. If you share your personal data on the Internet, you may receive spam and unsolicited **messages**

**Spam messages:** They are unwanted messages to advertise a product or obtain information from you and may contain viruses or unknown hyperlinks.

**Note:** Spam may include **a title**, unknown **electronic links**, or **texts written in capital letters**. **Download files:** You can save and download the files you want while you are using the Internet; **To be able - to open it at a later time** without need to connect to the Internet.

Think carefully before you download any file. Some of them contain **viruses** that may harm your device or track your information; So check the site you are downloading the files from.

**Evaluation:Complete:** Your friend sent a friend request on a social networking site, you must.....





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## Second Axis (Digital safety and security precautions)

### Lesson 3: Using ICT tools in a healthy and ethical way

**Lesson objectives:** By the end of this lesson the student will be able to:

- **Discuss** communicating positive messages online.
- **Explain** what it means to use ICT tools ethically.
- **Explain** the positive and negative effects of ICT tools.

**Strategy:**

Cooperative learning - Dialogue and discussion - Peer learning

**Teaching aids:**

Electronic whiteboard - presentation - video

**Warm Up :**

What important message would you like to share online?

### Lesson Presentation

✿ **Posting information on the Internet:** When you want to publish information about your friends on social networking sites and mention them in Make sure to ask their permission first, as this will show that you respect their privacy your posts.

✿ **Tag:** is the identification of a person in (post or photo. Or a video clip) **this hash tag or mention includes a link to that person's profile**

✿ **Before publishing any post, ask yourself the following question: does not object to it**

1- Is the content of this publication good?

2- Does it harm anyone? **If you are not sure about it, do not post it**

✿ **Crediting Others:** When you are looking for information to publish on the Internet or for inclusion in a Power Point Presentation It is important that Document the source of the information you share and mention the owners. By mentioning the source of the information, you are telling others that this information is Ownership of the owner of the source (individual or company) and its preference belongs to him

✿ **Respecting the law:** Whether you are publishing information on the Internet or researching topics, make sure to respect the law. Do not go to prohibited sites that publish inaccurate or harmful topics.



### Positive effects of using ICT

View the news with one click of the mouse

download videos and photos, to your device, and watch them whenever you want

Communicate with your friends and family members wherever they are anywhere in the world

### Negative effects of using ICT

Maybe you see something on the Internet that annoys you

You may feel tired in your eyes or a headache as a result of using electronic devices

Some people rely on Google to find answers to all their questions

**Evaluation:**

**Complete:** One of ICT tools' Advantages .....



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## Second Axis (Digital safety and security precautions)

### Lesson 4: How to search online

**Lesson objectives:** By the end of this lesson the student will be able to:

- **Explain** how to use browsers to search safely and correctly.
- **Discuss** the method of choosing words key to be used in the research Online
- **Realize** the importance of search engines for children

**Strategy:**

**Teaching aids:**

**Warm Up :**

Practical training - dialogue and discussion - critical thinking

Electronic board - textbook - presentation

Do you always find the information you need when you search?

### Lesson Presentation

#### ❑ To search securely :

⊗ If you receive a warning message Show it to a family member or teacher, and don't follow through Entering the site or the download process.  
Browse websites dedicated to your age only, seek help with your teacher or with your family.

⊗ If the sites **Not safe** Watching videos is not fun dangerous; For displaying unsafe, dangerous or otherwise unsafe videos . appropriate for your age

⊗ You can use browser tools to avoid it  
Clicking on links to inappropriate videos



⊗ When conducting a search, be sure to take advantage of Security properties for browsers, by selecting when Try to enter a site insecure, or download malicious software.



⊗ Some browsers feature custom search engines For children, content suitable for their age groups is presented.

It may include an app that allows parents to monitor children their children, along with helpful child safety tips.



#### ❑ Smart search:

⊗ If the keywords you use are general and popular Very, you will get You will get a large number of results, and many of them will not be relevant to your search

⊗ Search engines ignore some words, such as: (the - and - how - where - or) You may need these words or  
· letters in your search In order to ensure that your search includes these words or Letters Add the symbol ( + ) before the word

⊗ To shorten, limit, reduce and narrow the results that you get From the search, put this sentence in my tags quotes " "

⊗ Write long sentences , instead of Just two or three words

⊗ If you are looking for information about a particular · photo You can use the picture instead of the words in the text your search process.  
Use the camera button, and add the photo you want

⊗ To ensure that your search does not include other results desirable or unnecessary, you can add The symbol ( - ) before the words you want  
Not included in the research

❑ Browser: An application used to access information on the Internet, such as. **Fire fox - Google Chrome - Opera**

❑ Search Engine : **search engine** It is an application or program that is used to search the Internet, such as. **Yahoo - Google - Bing** :

❑ Results : **Results** It is a list of results that are collected and displayed based on a specific search.

**Evaluation :** Put ✓ or X:- The Internet is not important in obtaining information





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**Second Axis**(Digital safety and security precautions)  
**Lesson 5: Reliable and unreliable resources**

**Lesson objectives:** By the end of this lesson the student will be able to:

- **Define** the characteristics of sources reliable online sources.
- **Describe** reliable sources of information and unreliable online .
- **Explain** the purpose of Egyptian knowledge bank.

**Strategy:**

Brainstorming - dialogue and discussion - active learning - role playing

**Teaching aids:**

Electronic whiteboard - textbook - presentation - video

**Warm Up :**

How do you know whether the information you find online is true?

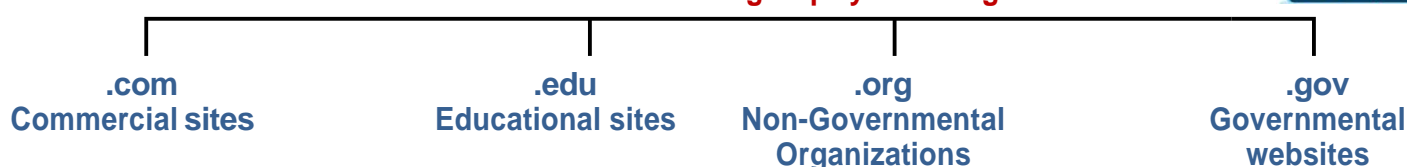
**Lesson Presentation**

❑ **The electronic sources** that give you the information you are looking for are countless and valuable , and this information may be **credible** or include personal opinions, wrong ideas, lies, lacking credibility Blogs and open source websites such as "wiki" are unreliable **sources** Verify reliable sources

❑ **When reviewing online resources, be sure to:** The publication date is recent Check the identity of the authors, who are they? Do they have experience Reliable sources feature well-written, error-free texts Make sure that the design of the pages is at a high level of professionalism Websites whose links end in . **com**. It may be reliable, but it is run by product marketing companies Linked sites. **gov** , **org** , **edu**. It has a **high degree of credibility**



**Website domains and groups you manage**



**Egyptian Knowledge Bank EKB :**

A digital library that the Egyptian government made freely accessible in 2016 to Unreliable protects its sources citizens from This library contains materials on various topics, the accuracy of all information contained in it has been checked, and it is credible

**Evaluation: Put ✓ or X:-**

All information on the internet is completely correct ( )



Egyptian Knowledge Bank  
بنك المعرفة المصري

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## Second Axis (Digital safety and security precautions)

### Lesson 6: Who can help you with online

**Lesson objectives:** By the end of this lesson the student will be able to:

- **Explain** common online problems.
- **Determine** who can help him with online problems.
- **Describe** the role of control management Internet crimes

**Strategy:**

**Teaching aids:**

**Warm Up :**

Brainstorming - dialogue and discussion

- Electronic board - presentation

If someone unkind you online who would you tell?

### Lesson Presentation



**Internet bullying and how to stop it**

→ **Bullying:** When one person behaves badly towards another person, repeatedly Bullying can include:



- A bully can share these posts, messages, or texts with you alone or with others, and it is difficult to escape from this type of bullying
  - Always be careful **not to communicate with unknown people** For you, and to inform your guardian of any situation that you may be exposed to so that he can help you
    - **Identity theft on the Internet** It is possible for a person to steal your identity or the identity of a member of your family via the Internet, and at that time the thief can use your personal information and can access your accounts on social networking sites, your home address, e-mail, or phone number
    - **What can we do to face problems while using the Internet?**
  - You don't have to deal with problems or face problems alone, make sure to tell an adult you trust about it, this person may be your father, mother or teacher
  - Sometimes it may be necessary for the intervention of the competent authorities the Anti-Cyber Crime Department to track this problem
- Remember:** the problems you encounter online are common problems that may scare you or make you feel powerless to deal with them, but you can always ask your family or the police for help.

**Evaluation:** **Complete:** A person impersonating you on social networking sites is.....





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## Second Axis (Digital safety and security precautions)

### Lesson 7 : Who can help you with online problems

**Lesson objectives:** By the end of this lesson the student will be able to:

- **Realize** importance of creating strong password.
- **Discuss** The importance of good anti-viruses software.
- **Explain** Ways to protect devices from Potential dangers online.

**Strategy:**

**Teaching aids:**

**Warm Up :**

Dialogue and discussion - critical thinking - cooperative learning

Electronic board - presentation

Why is it important to have a strong password?

### Lesson Presentation



#### ❑ Create strong passwords:

- It is important to have strong passwords, if they are easy to predict, some people **hackers**, **computer hackers** may be able to access your computer or the Internet, and this is what is known as **piracy** or **hacking**
- **Do not use**
- **one password** to access all your accounts, if someone knows your password, He will be able to access all of your accounts
- It is difficult to remember many passwords, so use a **password management system** or prepare a list of these words and keep them in a safe place



#### ❑ Consider the following to create a strong password:

To include letters and numbers

The password should consist of eight characters

The password does not include your name or any personal information

- ❑ **Viruses:** Dangerous programs that lead to serious problems if they infect the computer Sending emails without your knowledge to the addresses of everyone on your device, Delete your files
- ❑ **Antivirus programs :** They are programs that protect your devices from infection with viruses . When choosing antivirus programs, it is preferable to choose an easy-to-use program
- ❑ **Be careful when using the Internet and that is through:** Choose different passwords for your accounts on social networking sites, your email and your digital devices.
- ❑ **Use antivirus software on these devices.** There are sites that provide some insurance services for your accounts.

**Evaluation:** Complete: It's working ..... to destroy your personal device.



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**Second Axis (Digital safety and security precautions)**  
**Lesson 8 : Practicing what you learned**

**Lesson objectives:** By the end of this lesson the student will be able to:

- **Discuss** topics that he would like to research on with his colleagues
- **Identify** an important topic to raise awareness.
- **Choose** a suitable presentation tool.

**Strategy:** Brainstorming - dialogue and discussion - practical training - cooperative learning

**Teaching aids:** Electronic board- PowerPoint

**Warm Up :** What topic would you like to research?

**Lesson Presentation**

Researchers or explorers prepare digital reports on the subject of their study using:

Advertising posters

video clips

Presentations with PowerPoint

**1- Power point program**

A program produced by **Microsoft**, whose task is to prepare presentations through **presentation Slides** you It is a great way to present your ideas to others, as can make **your texts** great using **word art** . Add **text and images** to your presentation fun..... **sound effects** to it

**2- Video clips**



You can prepare your own video **as a display** for the research you have conducted, and you do not need expensive machines to prepare it. You only need a computer or mobile phone to record video **and audio videos** You can also **interview** others and add them to your video There are many mobile phone **applications** that can help you **prepare videos**

**3-advertising-posters**

You can use posters **as a way to present your ideas** It is an entertaining and effective way to present ideas, as you can display information through **pictures and graphics** Make sure to **write in bold** so that others can read the information from afar, and present **your ideas clearly** Do not forget to **mention the source** of your information

**Evaluation:** Complete: It is one of the most reliable sources on the internet .....





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## Review on second Axis (Digital safety and security precautions)

**Lesson objectives:** By the end of this lesson the student will be able to:

- **Mention** the different types of sources that can be used for Internet research
- **knows** a role Search engines and advanced search tools in online search
- **Acquiring** the skill of solving some technological problems

**Strategy:** Brainstorming - dialogue and discussion - practical training - cooperative learning

**Teaching aids:** Electronic board –

**Warm Up :** How do you keep yourself safe Use reliable and secure sources While searching on the Internet?

### Lesson Presentation

**Question 1: Write and Compare:** Write a sentence for each of the following pairs of phrases to explain the link between them:

- ← blocking and bullying
- ← Electronic sources and mention the sources of information and their owners
- ← Identity theft and spam



**The second question: - Read and answer:**

- ← List three sources that researchers can use to search for information
- ← What is the effect of viruses on the computer and the information contained in the device?
- ← What should you do before you tag your friend in a photo or post on the Internet ?
- ← Why is it useful to put the sentence in quotation marks when searching for it on the Internet?
- ← Name one reason why blogs are unreliable sources
- ← Give an example of cyberbullying
- ← What is hacking or hacking?
- ← What is PowerPoint?

**Evaluation:** Evaluate the students' answers